

# Building Back Safer and Stronger

---

Release Date: 2? 1, 2018

Rebuilding or repairing your home in the wake of Hurricane Irma may seem like a daunting task. However, using smart techniques when rebuilding and repairing can help minimize damage from flooding and wind and give you peace of mind about the safety of your home or business.

Examples of "flood smart" building techniques:

- Elevate and secure water heaters, furnaces and other appliances (such as washers and dryers) on pressure-treated wood or masonry so that they sit at least 12 inches above the floor level.
- Install backflow preventers and check valves to plumbing to ensure waste water and sewage flow out of your house. Floor drains and standpipes can also prevent flood or waste water from collecting in your home.
- Install a sump pump with a battery or water-powered backup system.
- Install all electrical panel boxes, circuit breakers, wall switches and outlets at least one foot above the base flood elevation for your area.
- Anchor any indoor or outdoor fuel tanks with non-corrosive metal bindings to prevent them from being swept away.
- Close up any cracks in the ceiling or foundation with a waterproof sealant. Flood waters can flow through even the smallest cracks and will quickly turn cracks into gaping holes.
- Install wire mesh guards over your gutters to prevent debris from clogging them and creating pockets of standing water on your roof.

Severe wind can accompany other natural hazards such as hurricanes and strong thunderstorms. It poses a threat to lives, property and vital utilities and will typically cause the greatest damage to structures of light construction, particularly manufactured homes.

These modifications or retrofits to existing residential buildings can reduce future wind damage:



**FEMA**

Page 1 of 2

- Install hurricane straps made from galvanized steel. They attach to trusses and wall plates.
- Install hurricane shutters.
- Retrofit gable end walls to eliminate wall failures in high winds.
- Strengthen the structural frames with load-path connectors.
- Install a safe room.
- Reinforce garage doors.
- Inspect and retrofit roofs to adequate standards to provide wind resistance.
- Secure all outside items that could become missiles in a strong wind event.

Be sure to obtain necessary permits and follow all local building codes when rebuilding or making repairs. Contact your local code officials before beginning any construction to ensure that you meet all floodplain management requirements.

For more information about rebuilding or repairing after a disaster, visit [Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards](#).

###



**FEMA**

Page 2 of 2